# MAY 0 6 2003

# PCT

## **INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	(Form PC	fication of Transmittal of International Search Report CT/ISA/220) as well as, where applicable, item 5 below.
RLL-283W0	ACTION	
International application No.	International filing date (day/month/y	(Earliest) Priority Date (day/month/year)
PCT/IB 02/05591	23/12/2002	
Applicant	<u> </u>	
RANBAXY LABORATORIES LIMI	TED	
This International Search Report has been according to Article 18. A copy is being tra		ning Authority and is transmitted to the applicant
This International Search Report consists  X It is also accompanied by	of a total of6 sheet a copy of each prior art document cite	
1. Basis of the report		,
With regard to the language, the language in which it was filed, unl	international search was carried out or ess otherwise indicated under this iten	n the basis of the international application in the n.
the international search w Authority (Rule 23.1(b)).	as carried out on the basis of a transla	ation of the international application furnished to this
<li>b. With regard to any nucleotide an was carried out on the basis of the</li>		in the international application, the international search
<del></del> ,	nal application in written form.	
filed together with the inte	rnational application in computer read	able form.
furnished subsequently to	this Authority in written form.	
	this Authority in computer readble for	
the statement that the sub international application a	esequently furnished written sequence s filed has been furnished.	listing does not go beyond the disclosure in the
the statement that the info furnished	ormation recorded in computer readabl	le form is identical to the written sequence listing has been
2. Certain claims were fou	nd unsearchable (See Box I).	
3. Unity of invention is lac	king (see Box II).	
4. With regard to the <b>title</b> ,		
the text is approved as su	bmitted by the applicant.	
the text has been establis	hed by this Authority to read as follows	S:
5. With regard to the abstract,		
the text is approved as su	bmitted by the applicant.	
the text has been establis	hed, according to Rule 38.2(b), by this	Authority as it appears in Box III. The applicant may, earch report, submit comments to this Authority.
6. The figure of the drawings to be publ	ished with the abstract is Figure No.	
as suggested by the appli	cant.	X None of the figures.
because the applicant faile	ed to suggest a figure.	
because this figure better	characterizes the invention.	

International application No.

### INTERNATIONAL SEARCH REPORT

PCT/IB 02/05591

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

This invention generally relates to the derivatives of 3.6-disubstituted azabicyclo [3.1.0] hexanes of the following formula I [A].

The compounds of this invention can function as muscarinic receptor antagonists, and can be used for the treatment of various diseases of the respiratory, urinary and gastrointestinal systems mediated through muscarinic receptors.

The invention also relates to a process for the preparation of the compounds of the present invention, pharmaceutical compositions containing the compounds of the present invention and the methods for treating the diseases mediated through muscarinic receptors.

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07D405/12 A61K31/352 A61P13/00

According to International Patent Classification (IPC) or to both national classification and IPC

#### **B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 CO7D A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.			
Y	EP 0 267 319 A (UNITED PHARMACEUTICALS INC) 18 May 1988 (1988-05-18) * see page 10, lines 54-58; page 7, first compound *	1-18			
Υ	EP 0 108 986 A (HOKURIKU PHARMACEUTICAL) 23 May 1984 (1984-05-23) page 1-4	1-18			
Y	EP 0 801 067 A (YAMANOUCHI PHARMA CO LTD) 15 October 1997 (1997-10-15) cited in the application page 3/	1-18			

X Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.		
Special categories of cited documents:      A* document defining the general state of the art which is not considered to be of particular relevance      E* earlier document but published on or after the international filing date      L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)      O* document referring to an oral disclosure, use, exhibition or other means      P* document published prior to the international filing date but later than the priority date claimed	<ul> <li>'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention invention.</li> <li>'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone.</li> <li>'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>'&amp;' document member of the same patent family</li> </ul>		
Date of the actual completion of the international search	Date of mailing of the international search report		
16 April 2003	06/05/2003		
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL - 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nt,	Authorized officer		
Fax: (+31-70) 340-3016	Lauro, P		

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	ation) DOCUMENTS CONSIDERED TO BE RELEVANT		
ategory °	Citation of document, with indication, where appropriate, of the relevant passages	Releva	nt to claim No.
Y	YUFU SAGARA ET AL.: "Cyclohexylmethylpiperidinyltriphenylpropionamide: a selective muscarinic M3 antagonist discriminating against the other receptor subtypes"  J. MED. CHEM., vol. 45, no. 4, 2002, pages 984-987, XP002238502 cited in the application figure 2		1-18
A	EP 0 072 620 A (RECORDATI CHEM PHARM) 23 February 1983 (1983-02-23) the whole document		1-18

1

## 

Im....ation on patent family members

# etional Application No PCT/IB 02/05591

						<del></del>
	tent document in search report		Publication date		Patent family member(s)	Publication date
EP	0267319	Α	18-05-1988	ΕP	0267319 A1	18-05-1988
				US	4647562 A	03-03-1987
				US	4652649 A	24-03-1987
EP	0108986	Α	23-05-1984	JP	59157081 A	06-09-1984
				JP	59186974 A	23-10-1984
				JP	59204182 A	19-11-1984
				JP	60028971 A	14-02-1985
				JP	59082380 A	12-05-1984
				AU	2087083 A	10-05-1984
				BG DK	37525 A3 498683 A	14-06-1985 03-05-1984
				EP	0108986 A1	23-05-1984
				ES	8504760 A1	16-07-1985
				HU	35661 A2	29-07-1985
				US	4525356 A	25-06-1985
				ZA	8308067 A	31-10-1984
ΕP	0801067	Α	15-10-1997	AT	233761 T	15-03-2003
				AU	695616 B2	20-08-1998
				AU DE	4355396 A	19-07-1996
				EP	69529844 D1 0801067 A1	10-04-2003 15-10-1997
				FI	972775 A	22-08-1997
			,	JP	3014457 B2	28-02-2000
				NO	973027 A	28-08-1997
				NZ	298144 A	27-04-1998
				PL	321019 A1	24-11-1997
				RU	2143432 C1	27-12-1999
			•	US	6017927 A	25-01-2000
				CA	2208839 A1	04-07-1996
				CN	1171109 A ,B	21-01-1998
	-			HU	77006 A2	02-03-1998
				WO	9620194 A1	04-07-1996 16-01-2001
				US	6174896 B1	10-01-2001
	0072620		22 02 1002			
 EP	 0072620	Α	23-02-1983	AR	231543 A1	28-12-1984
 EP	 0072620	Α	23-02-1983	AR AT	231543 A1 16806 T	28-12-1984 15-12-1985
 EP	 0072620	Α	23-02-1983	AR AT AU	231543 A1 16806 T 553322 B2	28-12-1984
 EP	 0072620	Α	23-02-1983	AR AT AU AU	231543 A1 16806 T	28-12-1984 15-12-1985 10-07-1986
 EP	 0072620	Α	23-02-1983	AR AT AU	231543 A1 16806 T 553322 B2 8609882 A	28-12-1984 15-12-1985 10-07-1986 20-01-1983
 EP	 0072620	Α	23-02-1983	AR AT AU AU CA DE DK	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 3267782 D1 301982 A ,B,	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1986 18-01-1983
EP	 0072620	Α	23-02-1983	AR AT AU AU CA DE DK EP	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 3267782 D1 301982 A ,B, 0072620 A1	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1986 18-01-1983 23-02-1983
 EP	0072620	Α	23-02-1983	AR AT AU AU CA DE DK EP ES	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 3267782 D1 301982 A ,B, 0072620 A1 8400109 A1	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1986 18-01-1983 23-02-1983 01-01-1984
EP	0072620	A	23-02-1983	AR AU AU CA DE DK EP ES	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 3267782 D1 301982 A ,B, 0072620 A1 8400109 A1 822493 A ,B,	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1986 18-01-1983 23-02-1983 01-01-1984 18-01-1983
EP	0072620	Α	23-02-1983	AR AU AU CA DE DK EP ES FI GB	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 3267782 D1 301982 A ,B, 0072620 A1 8400109 A1 822493 A ,B, 2104507 A ,B	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1986 18-01-1983 23-02-1983 01-01-1984 18-01-1983 09-03-1983
 EP	0072620	Α	23-02-1983	AR AU AU CA DE DK EP ES GB GR	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 3267782 D1 301982 A ,B, 0072620 A1 8400109 A1 822493 A ,B, 2104507 A ,B	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1986 18-01-1983 23-02-1983 01-01-1984 18-01-1983 09-03-1983 11-12-1984
EP	0072620	A	23-02-1983	AR AU AU CA DE DK EP ES FI GB GR	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 3267782 D1 301982 A ,B, 0072620 A1 8400109 A1 822493 A ,B, 2104507 A ,B 81300 A1 189601 B	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1986 18-01-1983 23-02-1983 01-01-1984 18-01-1983 09-03-1983 11-12-1984 28-07-1986
EP	0072620	A	23-02-1983	AR AU AU CA DE DK EP ES FI GR HU IE	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 3267782 D1 301982 A ,B, 0072620 A1 8400109 A1 822493 A ,B, 2104507 A ,B 81300 A1 189601 B 53525 B1	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1986 18-01-1983 23-02-1983 01-01-1984 18-01-1983 09-03-1983 11-12-1984 28-07-1986 07-12-1988
EP	0072620	A	23-02-1983	AR AU AU CA DE DK EP ES FI GR HU IE IT	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 3267782 D1 301982 A ,B, 0072620 A1 8400109 A1 822493 A ,B, 2104507 A ,B 81300 A1 189601 B 53525 B1 1198389 B	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1986 18-01-1983 23-02-1983 01-01-1984 18-01-1983 09-03-1983 11-12-1984 28-07-1986 07-12-1988 21-12-1988
EP	0072620	A	23-02-1983	AR AU AU CA DE DK EP ES FI GR HU IE	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 3267782 D1 301982 A ,B, 0072620 A1 8400109 A1 822493 A ,B, 2104507 A ,B 81300 A1 189601 B 53525 B1 1198389 B 1642845 C	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1986 18-01-1983 23-02-1983 01-01-1984 18-01-1983 09-03-1983 11-12-1984 28-07-1986 07-12-1988 21-12-1988 28-02-1992
EP	0072620	A	23-02-1983	AR AU AU CA DE DK EP ES FI GR HU IE JP	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 3267782 D1 301982 A ,B, 0072620 A1 8400109 A1 822493 A ,B, 2104507 A ,B 81300 A1 189601 B 53525 B1 1198389 B	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1986 18-01-1983 23-02-1983 01-01-1984 18-01-1983 09-03-1983 11-12-1984 28-07-1986 07-12-1988 21-12-1988
EP	0072620	A	23-02-1983	AR AU AU CA DE DK EP GR HIET JP JP KR	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 301982 A ,B, 0072620 A1 8400109 A1 822493 A ,B, 2104507 A ,B 81300 A1 189601 B 53525 B1 1198389 B 1642845 C 2051914 B 58035185 A 8700275 B1	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1986 18-01-1983 23-02-1983 01-01-1984 18-01-1983 09-03-1983 11-12-1984 28-07-1986 07-12-1988 21-12-1988 21-12-1988 21-12-1988 28-02-1992 08-11-1990 01-03-1983 23-02-1987
EP	0072620	A	23-02-1983	AR AU AU CA DE DE ES GR HE JP JP KR MX	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 301982 A ,B, 0072620 A1 8400109 A1 822493 A ,B, 2104507 A ,B 81300 A1 189601 B 53525 B1 1198389 B 1642845 C 2051914 B 58035185 A 8700275 B1 154643 A	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1983 23-02-1983 01-01-1984 18-01-1983 09-03-1983 11-12-1984 28-07-1986 07-12-1988 21-12-1988 21-12-1988 28-02-1992 08-11-1990 01-03-1983 23-02-1987 10-11-1987
EP	0072620	A	23-02-1983	AR AU AU CA DE DK EP GR HIET JP JP KR	231543 A1 16806 T 553322 B2 8609882 A 1221969 A1 301982 A ,B, 0072620 A1 8400109 A1 822493 A ,B, 2104507 A ,B 81300 A1 189601 B 53525 B1 1198389 B 1642845 C 2051914 B 58035185 A 8700275 B1	28-12-1984 15-12-1985 10-07-1986 20-01-1983 19-05-1987 16-01-1986 18-01-1983 23-02-1983 01-01-1984 18-01-1983 09-03-1983 11-12-1984 28-07-1986 07-12-1988 21-12-1988 21-12-1988 21-12-1988 28-02-1992 08-11-1990 01-03-1983 23-02-1987

## \*\*ITEF 'ATIONAL SEARCH REPORT

Imamation on patent family members

ational Application No PCT/IB 02/05591

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 0072620	Α		PH	18001 A	28-02-1985
			PT	75230 A .B	01-08-1982
			SG	77784 G	26-04-1985
			US	4550115 A	29-10-1985
		•	ÝU	125184 A1	30-04-1985
			YU	136682 A1	30-06-1985
			ZA	8204335 A	25-05-1983